# FRESH WATER FISH DIVERSITY IN ARALAM WILDLIFE SANCTUARY, KERALA, SOUTH INDIA<sup>1</sup>

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Key words: Aralam, freshwater, Kerala, Western Ghats

The rivers of Aralam Wildlife Sanctuary located in Kannur district, Kerala were surveyed in February 1995. Thirty three species of fishes were recorded. *Osteocheilus nashii* and *Noemacheilus nilgiriensis* were recorded for the first time from a west flowing river. Observation of *Puntius denisonii* indicates extension of range to the north of the Palghat gap in Western Ghats.

# Introduction

The recent thrust on biodiversity conservation necessitates documentation of fauna and identification of biodiversity hot spots in Western Ghats. Day (1865, 1878) contributed to the fish fauna of India and Malabar. Pillay (1929), John (1936), Hora and Nair (1941) and Hora and Law (1941) reported the freshwater fishes of Kerala, especially the Travancore region. However, the freshwater systems north of Palghat gap were comparatively unexplored. Rajan (1955) described the freshwater fishes of Bhavani River System. Remadevi and Indra (1986) documented the fishes of Silent Valley National Park. Recently, Shaji and Easa reported extension of range of Danio (Brachydanio) rerio and Noemacheilus petrubanarescui to fresh waters of northern Kerala. Easa and Shaji also reported addition of *Puntius melanampyx* to the fish fauna of Silent Valley. The present survey was conducted to document the freshwater fishes of Aralam Wildlife Sanctuary.

#### STUDY AREA

Aralam Wildlife Sanctuary forms a part of the contiguous chunk of forests comprising Reserve forests of Karnataka, Tamil Nadu and Kerala. It is in the south-eastern side of Canannore district and is located between 11° 49' and 11° 50' E. lat. and 75° 49' and 75° 57' N. long. It is about 55 sq. km in

extent. Tropical wet evergreen forests form the major vegetation type. The area is drained by tributaries of perennial rivers Uruttipuzha and Cheenkannipuzha.

## **Methods**

The study area was visited during February, 1995 and fishes were collected from five localities using cast nets, gill nets and scoop nets. Suitable conventional method of sieving by cloth and temporary bunding of tributaries were also employed in certain areas. Works of Day (1865, 1878), Jayaram (1981), Datta Munshi and Srivastava (1988), Talwar and Jhingran (1991) and Menon (1987, 1992) were referred for identification.

# RESULTS AND DISCUSSION

The survey indicates that the drainage system in Aralam is rich in fish diversity. A total of 33 species belonging to 15 families were collected from 5 localities (Table 1). Most of these are widely distributed in Kerala and other parts of Western Ghats. Garra mullya, Barilius bakeri and Danio aequipinnatus were the commonest and uniformly distributed fishes in Aralam Wildlife Sanctuary. Puntius denisonii, Salmostoma acinaces, Mystus cavasius, Ompok bimaculatus, Clarias dussumieri dussumieri, Parambassis thomassi, Etroplus suratensis, Channa marulius and Anguilla bengalensis bengalensis were comparatively rare and confined to Cheenkannipuzha, the major river system of Aralam Wildlife Sanctuary.

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SPECIES WISE DISTRIBUTION OF FISHES IN DIFFERENT LOCALITIES IN ARALAM WILDLIFE SANCTUARY

Family: Cyprinidae  Sub-family: Cyprinidae  1. Puntius filamentosus (Val.)  3. P. ticto ticto (Ham.)  4. P. curmuca (Ham.)  5. P. melanampyx melanampyx (Day)  6. P. amphibius (Val.)  7. Osteochilus nashii (Day)  8. Tor kludree (Sykes)  6. Sub-family: Cultrinae  9. Salmostoma acinaces (Val.)  10. Rasbora daniconius daniconius (Ham.)12  11. Barilius bakeri Day  11. Barilius bakeri Day  12. Danio aequipinnatus  13. Garra mullya (Skyes)  Family: Homalopteridae  14. Bhavania australis  15. Noemacheilus triangularis  16. Sub-family: Noemacheilus triangularis						specimens	
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16. N. guentheri Day	2		_		9 ;	16	43-81
17. N. nilgiriensis (Menon)	1	(( , I	1	•	_	=	37-47
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19. Mystus cavasius		1	1	1		-	1
(HamBuch.)							

TABLE I (contd.)

Species	Cheenkanni puzha	Cheenkanni- Valayamchal Narikadavu puzha	Narikadavu	Chavachi- thodu	Uruttipuzha	Iyknam- thodu	Kurukka- thodu	Total No. of	SL (in mm)
								specimens	
Family: SILURIDAE									
20. Ompok bimaculatus (Bloch)	_		'	•	1		•		80
Family: Sisoridae									
21. Glyptothorax madraspatanum	6			•	ı			6	53-81
(Day)									
Family: CLARIIDAE									
22. Clarias dussumieri	, mad	1	1	1	1		•		124
dussumieri (Val.)									
Family: Belonidae									
23. Xenentodon cancila	_	_	ı	ı	ı	1	1	2	161-85
Family: Cyprinodontidae									
24. Aplocheilus lineatus (Val.)	-		-	1	1	1	1	K	40-52
Family: Amassinae									
I amily. Ambassidae									
25. Parambassis thomassi (Day)		•	1	1				_	91-101
Family: Nandidae									
26. Pristolepis malabarica (Gunther)	3	ı	1		1	1	1	S	80-82
Family: Cichlibae									
27 Etwarfing grantformatic (Block)	_					-		-	101
21. Etropius suraiensis (Biocii)	<b>-</b>	ı	1	•		ı			101
Family: Channidae									
28. Channa marulius (HamBuch.)	-	•	1			1			157
29. C. orientalis (Schneider)	9	5	ı	1	1			=	62-91
Family: Mastacembelidae									
30. Matacembelus guentheri Day	m	2	1	•	•	1		2	76-84
	5	2	1	1	1			7	150-256
armatus (Lacepede)		4							
Family: Anguillidae									
32. Anguilla bengalensis	_	1	ļ.,			ı	ı	-	380
bengalensis (Gray)									
Family:Gobiidae									
33. Sicydium fasciatum	3	1			1		4	3	52-725

Osteochilus nashii which has originally been reported from the east flowing Cauvery river system is reported for the first time from a west flowing river system. Puntius denisonii (Day) has so far been reported only from the Travancore hills (Day 1865). Later, Silas (1951) reported the species from the hill ranges of Anamalai and Nelliampathy. The present observation of Puntius denisonii (Day) from Aralam Wildlife Sanctuary indicates its range of extension to the north of Palghat gap. Noemacheilus nilgiriensis (Menon) has been reported only from Pykara Dam, Nilgiri District, Tamil nadu (Menon

1987). The present survey reports its occurrence for the first time in a west flowing river in Kerala.

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